

REMARKS

35 U.S.C. 103(a) REJECTIONS

Schnee, Schilling et al., and Lucas et al.

CLAIMS 1, 2, 3, 14, 18, 20 & 24

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JUL 12 1999

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Claim 1 includes the limitation "a display-control box having an image display screen and control buttons for controlling said camera and its movement" None of the references cited by the examiner disclose an integrated display-control box. In view of this result, the examiner argues that it would be obvious to combine Schnee's "display box" 58, Schilling et al.'s "display box" 1, or Lucas et al.'s "display box" 12 and Schnee's "camera controls" 56 (neither Schilling et al. nor Lucas et al. disclose "camera controls") into a single box. The issue brought forth by this argument is what would be the motivation that would drive a person skilled in the art to make such a combination:

To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. . . . The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." MPEP § 2142.

The examiner's rationale for combining the "display box" and the "camera controls" is that "[i]t would have been obvious to have an adjustable control/display area for easy access for the navigator or operator." 04/14/99 Office Action, page 3.

Schilling et al. does not envision using a camera with his "device for supporting objects so as to be rotatable about an axis of rotation" and is consequently of little help in providing motivation for integrating "camera controls" into a "display box".

Lucas et al.'s vehicular mounted surveillance system does not use a remotely-controlled camera and consequently is also of little help in supplying motivation for integrating "camera controls" into a "display box".

Schnee describes a system based on a remotely-controlled camera and suggests that the "camera controls" be located adjacent to the "display box" but makes no suggestion that the "camera controls" should actually be incorporated into the "display box". Schnee, col. 3, lines 60-67. The basis for Schnee's suggestion appears to be the need for the operator of the system to be able to control the camera while at the same time observing the display. But it does not follow that the need for a visually-accessible display and physically-accessible camera controls translates into "camera controls" that are built into the "display box".

Schnee suggests the desirability of controlling the camera from the helm of a marine vessel. However, it would be undesirable to constrain the mounting of the monitor in the cabin of the marine vessel so that controls incorporated into the monitor box would be within reach of the helmsman. Why wouldn't a person skilled in the art mount the display box based on (1) mounting convenience and (2) visual accessibility by the helmsman? Why wouldn't a person skilled in the art provide a separate camera-controls box and mount the box based on (1) mounting convenience and (2) physical accessibility by the helmsman? What would be the point

of integrating the camera controls with the display and thereby possibly compromising the visual accessibility of the display and the physical accessibility of the camera controls?

Would not a person skilled in the art be motivated by Schnee's suggestion to mount the camera controls near the helm, independent of the location of the monitor, and readily accessible to the helmsman? Or why not build the "camera controls" into a remote unit (like a television remote control) that is completely portable and independent of the "display box"?

The examiner's argument that "[i]t would have been obvious to have an adjustable control/display area for easy access for the navigator or operator" appears to be based on applicant's disclosure. But finding motivation in applicant's specification is improper:

"The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991)." MPEP § 2142.

The examiner's conclusion that it would have been obvious to have an adjustable control/display area for easy access for the navigator or operator is logically unsupportable. It does not follow that incorporating "camera controls" in the "display box" results in easy access to the "camera controls" for the navigator or operator. "Easy access" to the "camera controls" is a function only of the relative locations of the "camera controls" and the navigator or operator.

A person skilled in the art would find no suggestion or motivation to combine "camera controls" and "display" in a single box, and consequently, a *prima facie* case of obviousness has not been established for claim 1.

CLAIM 5

The examiner cites Schnee (col. 2, line 66 through col. 3, line 4) as disclosing applicant's "water seal attached to said tilting mechanism." The cited passage refers to a "motor housing . . . sealed for protection against water." However, the motor housing 18 is separate and distinct from the "tilting mechanism" which causes the camera housing 12 to rotate about axis 16. Schnee, Fig. 1, col. 2, lines 55-58.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the cited references disclose applicants' "water seal attached to said tilting mechanism.", *prima facie* obviousness of claim 5 has not been established.

CLAIM 19

Neither Schnee, Schilling et al., nor Lucas et al. disclose "camera controls" that include "a viewing angle adjustment lever".

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of

that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the cited references disclose applicants' "viewing angle adjustment lever", *prima facie* obviousness of claim 5 has not been established.

CLAIM 23

Neither Schnee, Schilling et al., nor Lucas et al. disclose "a mount assembly adaptable to a railroad locomotive attachment."

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the cited references disclose applicants' "a mount assembly adaptable to a railroad locomotive attachment", *prima facie* obviousness of claim 23 has not been established.

35 U.S.C. 103(a) REJECTIONS

Schnee, Schilling et al., Lucas et al., and Paddock et al.

CLAIM 4

The examiner cites Paddock et al. as disclosing applicants' claim-4 limitation wherein said mount assembly includes a double locking mechanism. However, Paddock et al. states:

"The quick release mechanism, when it is open, allows the mounting plate to be mounted to the adjustable platform. When the locking screw is loosened, the quick release mechanism slidably secures the mounting plate to the adjustable platform. When the locking screw is tightened, the quick release mechanism secures the mounting plate to the adjustable platform." Paddock et al., col. 3, lines 60-67

Note that when the locking screw is loosened, the quick release mechanism slidably secures the mounting plate to the adjustable platform. The mounting plate is not locked to the adjustable platform if it is slidably secured. Thus, the locking screw is the only means provided for locking the mounting plate to the platform.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the cited references disclose applicants' "double locking mechanism", *prima facie* obviousness of the claim-4 invention has not been established.

CLAIM 8

The examiner cites Paddock et al. as disclosing applicants' "ball-plunger for self-locking."

However, Paddock et al. states:

"The ball-plunger 80 of the screw 79 engages one of the notches 81, . . . , of the cam lever 73 when the cam lever 73 is in its closed position . . . in order to provide a stop therefor. When the cam lever 73 is in its open position . . . the ball-plunger 80 of the screw 79 engages the other notch 81, . . . , of the cam lever 73 in order to provide a stop therefor." Paddock et al., col. 7, lines 37-45.

Providing a "stop" is not the same as performing a "self-locking" function.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the cited references disclose a "ball-plunger for self-locking.", *prima facie* obviousness of the claim-8 invention has not been established.

CLAIM 9

Claim-9 specifies "a security fastener as a secondary and operator activated mechanical locking mechanism." Paddock et al.'s "locking screw 77" is not a security fastener (releasable only with a special key). Also, since Paddock et al. does not disclose a double locking mechanism (see claim 4 discussion above), Paddock et al. also does not disclose applicants' "security fastener as a secondary and operator activated mechanical locking mechanism."

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the references Schnee, Schilling et al., Lucas et al. and Paddock et al. disclose applicants' claim-9 limitations, *prima facie* obviousness of the claim-9 invention has not been established.

35 U.S.C. 103(a) REJECTIONS

Schnee, Schilling et al., Lucas et al., and Klapper et al.

CLAIMS 6, 7, 21, 22

The examiner cites Klapper et al. as disclosing applicants' mount assembly adapted to engage a roof-rack of a vehicle (claim 6), a Thule^R roof rack system (claim 7), a Yakima^R roof rack system (claim 21), and emergency vehicle light bars (claim 22).

Klapper et al. does not disclose a camera having a mounting assembly adapted for use with commercially-available roof-rack systems. Klapper et al. discloses custom mounting hardware 1012 that can secure a camera to the roof of a vehicle—not to the roof-rack of the vehicle. Col. 3, lines 48-50; Col. 4, lines 1-4. The "custom" nature of the mounting hardware is indicated by the center support 1014 which has mounting holes that match the pointing mechanism 500. Klapper et al.'s night vision camera 1 and pointing mechanism 500 are not adapted for mounting to commercially-available roof-racks.

Klapper et al. does not disclose the limitations of claims 6, 7, 21, and 22.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the cited references disclose a "mount assembly adapted to engage a roof-rack of a vehicle", *prima facie* cases of obviousness have not been established for claims 6, 7, 21, and 22.

35 U.S.C. 103(a) REJECTIONS

Schnee, Schilling et al., Lucas et al., and Kormos et al.

CLAIM 10

The examiner cites Kormos et al. as having disclosed applicants' claim-10 "singular support for both pan and tilt mechanisms." The adjective "singular" in the context of the specification means that both the pan mechanism and the tilt mechanism are supported at only one end of the axis of rotation. Specification, page 13, 1st complete paragraph. Kormos et al. does not disclose singular support for the tilt mechanism. Kormos et al. describes a floating tilt 508 with first and second trunnions 512 and 514 secured to opposite sides of the night vision system 1. Kormos et al., col. 2, lines 56-60. Kormos et al. also does not disclose the slip clutches specified in claim 10.

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the cited references disclose "singular support for both pan and tilt mechanisms" and "slip clutches", *prima facie* obviousness of the claim-10 invention has not been established.

35 U.S.C. 103(a) REJECTIONS

Schnee, Schilling et al., Lucas et al., Kormos et al., and Kurian

CLAIM 11

The examiner's argument for the obviousness of applicants' claim-11 invention depends on Kormos et al. having disclosed a slip clutch in a camera pointing mechanism and Kurian having disclosed the slip clutch limitations appearing in claim 11. The argument fails because Kormos et al. does not disclose a slip clutch.

Kormos et al. avoids the need for slip clutches by utilizing Hall effect sensors to provide an indication of the position of the tilt drive gear 522:

"The Hall effect output establishes the limits of travel at each extreme so that the tilt gimbal 502 can be disabled at angular extremes." Kormos et al., col. 3, lines 10-22.

Combining Kurian and Kormos et al. would require the substitution of Kurian's slip clutch for Kormos et al.'s Hall effect sensors and the tilt gimbal disabling mechanism. This substitution would change the principle of operation of the Kormos et al. invention and the teachings of Kurian and Kormos et al. would not be sufficient to render the claim-11 invention obvious:

"If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d, 123 USPQ 349 (CCPA 1959)." MPEP § 2143.01.

Since the combination of Kurian and Kormos et al. would change the principle of operation of the Kormos et al. invention, *prima facie* obviousness of applicants' claim-11 invention is not

established.

35 U.S.C. 103(a) REJECTIONS

Schnee, Schilling et al., Lucas et al., Sergeant et al., & Kennedy et al.

CLAIM 12

The examiner cites Kennedy et al. as disclosing applicants' "camera enclosure with bezel opening that is threaded to accept optical filters." The passage cited by the examiner is:

"A 1.5 micrometer edge filter 34 along with a 0.7 neutral density optical filter 36 are placed in the lens." Kennedy et al., col. 5, lines 23-24.

Note that the passage describes placing the filter in the lens, not the camera enclosure 20. The passage does not say anything about a bezel opening threaded to accept optical filters. In short, Kennedy et al. does not disclose the claim-12 limitation quoted above.

The examiner cites Sergeant et al. as disclosing applicants' "o-ring" for sealing the optical filter in a bezel opening in the camera enclosure. But Sergeant et al.'s o-rings are used to seal the ends of the camera enclosure and have nothing to do with sealing an optical filter into an opening in the camera enclosure. Sergeant et al., Abstract. The combination of Kennedy et al. and Sergeant et al. results in a camera within a camera enclosure, the camera having an optical filter within the lens of the camera and the camera enclosure ends sealed with o-rings. Compare this combination with applicants' camera within a camera enclosure, the camera enclosure having a

threaded bezel opening to accept an optical filter, the filter being sealed in the bezel opening with an o-ring.

The combination proposed by the examiner is not the invention claimed by applicants in claim 12. If the combination of the prior art does not result in applicants' claimed invention, there can be no issue of obviousness.

CLAIM 16

The examiner does not reference any prior art wherein a camera enclosure acts as an additional heat sink. According to the Manual of Patent Examining Procedure, obviousness can be established only if each limitation of the claim is described by at least one of the prior-art references:

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the prior art cited by the examiner disclose the limitation of claim 16, the examiner has not established a *prima facie* case of obviousness.

35 U.S.C. 103(a) REJECTIONS

Schnee, Schilling et al., Lucas et al. & McMahon

CLAIM 13

The examiner cites McMahon as disclosing applicants' "Field-of-View (FOV) stabilized camera." McMahon discloses the use of a gyro-stabilized camera system. McMahon, col. 1, line 11. A gyro-stabilized camera system is not a field-of-view stabilized camera. A gyro-stabilized camera maintains a fixed perspective in an inertial frame of reference. A field-of-view stabilized camera controls the orientation of the camera so that the field of view remains invariant.

According to the Manual of Patent Examining Procedure, obviousness can be established only if each limitation of the claim is described by at least one of the prior-art references:

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the prior art cited by the examiner disclose the limitation of claim 13, the examiner has not established a *prima facie* case of obviousness.

35 U.S.C. 103(a) REJECTIONS

Schnee, Schilling et al., Lucas et al. & Baumeister

CLAIM 15

The examiner cites Baumeister as disclosing applicants' "bimetal heat sink for camera power supply temperature control." But the Baumeister invention involves a microprocessor that "changes the imager temperature to the optimum value by means of a thermo-electric device attached to the solid state imager." Baumeister, col. 2, lines 19-23. Changing the imager temperature is not the same as changing the camera power supply temperature.

According to the Manual of Patent Examining Procedure, obviousness can be established only if each limitation of the claim is described by at least one of the prior-art references:

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the prior art cited by the examiner disclose the limitation of claim 15, the examiner has not established a *prima facie* case of obviousness.

35 U.S.C. 103(a) REJECTIONS

Schnee, Schilling et al., Lucas et al. & Balkwill et al.

CLAIM 17

The examiner cites Balkwill et al. as disclosing applicants' camera enclosure that "incorporates a one-way moisture passage plug with flexible and sealed passage for wires." Balkwill et al.'s invention is described as follows:

"The present invention provides a cover for an electrical box having a fastening flange extending outwardly therefrom to be fastened to a structural member in the wall or ceiling. The cover extends completely around the side walls and the back wall of the box and has a flexible, thin-wall flange slanting away from the cover so that the peripheral edge of the flange can tightly contact the back surface of the wall or ceiling panel in which the box is mounted. In this manner, air and water or moisture are prevented from entering through the box itself and also around the box through the opening in the wall or ceiling in which the box is mounted. Similarly, heated air is prevented from escaping."

Balkwill et al., col. 1, lines 28-40.

A "flexible, thin-wall flange slanting away from the cover so that the peripheral edge of the flange can tightly contact the back surface of the wall or ceiling panel" prevents air, water, and moisture from either entering or leaving the box. It does not enable the flow of moisture in only one direction as called for by the claim.

According to the Manual of Patent Examining Procedure, obviousness can be established only if each limitation of the claim is described by at least one of the prior-art references:

"To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. *In re Royka*, 490 F.2d 981, 180 USPQ 580 (CCPA 1974). All words in a claim must be considered in judging the patentability of that claim against the prior art. *In re Wilson*, 424 F.2d 1382, 165 USPQ 494, 496 (CCPA 1970)." MPEP § 2143.03.

Since none of the prior art cited by the examiner disclose the limitation of claim 17, the examiner has not established a *prima facie* case of obviousness.

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Claims 1-24 are believed to be in condition for allowance and such action is respectfully requested.

Enclosed is a Power-of-Attorney signed by the inventors.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert E. Malm", written in a cursive style.

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